

## GOAL 4: PREVENTING POLLUTION AND REDUCING RISKS IN COMMUNITIES, HOMES, WORKPLACES, AND ECOSYSTEMS

**Pollution prevention and risk management strategies aimed at eliminating, reducing, or minimizing emissions and contamination will result in cleaner and safer environments in which all Americans can reside, work, and enjoy life. EPA will safeguard ecosystems and promote the health of natural communities that are integral to the quality of life in this Nation.**

### PROGRESS TOWARD THE STRATEGIC GOAL AND OBJECTIVES

EPA is on track to meet most of its strategic objectives toward its goal of ensuring cleaner and safer environments by preventing pollution before it occurs and reducing human and ecosystem risks from pollutants that cannot be eliminated at their source. EPA's work under this goal spans six strategic objectives that follow a risk identification, reduction, and elimination progression:

- Screening new and existing chemicals to identify potential for human and ecological risks.
- Assessing environmental conditions on tribal lands to identify need for action.
- Improving indoor air quality to rid homes, schools, and workplaces of indoor environmental pollutants and to reduce asthma incidents.
- Reducing the incidence of childhood lead poisoning and human exposure to polychlorinated biphenyls (PCBs), dioxin, and asbestos, as well as other chemicals of concern.
- Reducing pesticide risks to workers, consumers, and ecosystems.
- Preventing, recycling, and reducing wastes and toxic chemicals.

EPA's Chemical-Right-To-Know Program focuses on providing the public with information on the basic health and environmental effects of the 2,800 highest production volume chemicals in the United States. More than 300 companies and 101 consortia have voluntarily accepted the

challenge to address the absence of and need for screening-level data for more than 2,100 high-production-volume (HPV) chemicals by 2005, with the remaining to be addressed by international and government actions. In FY 2002 EPA continued to make health and environmental effects screening data publicly available for more than 800 industrial and commercial chemicals, making steady progress toward its objective of screening existing chemicals to identify potential human and ecological hazards and risks.<sup>1</sup> EPA also continued its work to evaluate potential risk of 20 chemicals to which children have a high likelihood of exposure.<sup>2</sup>

In connection with assessing conditions on tribal lands, EPA's American Indian Environmental Office (AIEO) has made tremendous progress in developing an electronic baseline assessment system used to access tribal environmental information.<sup>3</sup> In addition to providing a picture of environmental conditions in Indian Country, this baseline assessment profile will provide indicators of the progress of tribal environmental programs in contributing to the Agency's strategic goals and objectives. EPA deployed the Tribal Information Management System (TIMS) as an Intranet application in September 2001 and can now extract environmental information tribe by tribe or by using tribal boundaries. TIMS currently has completed profiles for 300 tribes. In addition to TIMS, AIEO has developed a GPRA performance measure tracking system called the Tribal Accountability Tracking System and a tracking system for the General Assistance Program (GAP) grants program.

In FY 2002 EPA continued to make progress toward its strategic objective of improving indoor air quality. By reducing the exposure of children with asthma to indoor environmental triggers and to secondhand smoke in their homes, EPA seeks to protect a particularly vulnerable sector of the population.<sup>4</sup> EPA is also making progress in promoting the adoption of good indoor air quality management in schools and commercial buildings and in reducing the exposure of all Americans to elevated levels of radon in their homes.<sup>5</sup>

EPA has made great strides in reducing the incidence of childhood lead poisoning through a combination of rulemaking, education, research, and partnerships. According to blood lead level data from the National Health and Nutrition Examination Survey for children 1 to 5 years of age, the incidence of children with elevated blood lead levels dropped in the last decade.<sup>6</sup> In addition, the geometric mean blood level for children ages 1 to 5 years decreased from 15  $\mu$ /dL to 2  $\mu$ /dL from 1980 to 1999.

EPA has made significant progress in reducing pesticide risks to workers, consumers, and ecosystems through a wide array of environmental programs. The Agency is ensuring that pesticides pose less risk to groundwater through careful management of pesticides with high leaching and persistence potential. EPA identified 31 such pesticides. Twenty-one of those pesticides were managed through FY 2002. The development and implementation of environmentally friendly model partnership pilot projects under the Strategic Agricultural Initiative, as well as Pesticide Environmental Stewardship strategies developed by voluntary partners, have encouraged a transition to safer pesticides. In a new measure for FY 2002, the Agency found that the use of pesticides that it considers safer increased to an estimated 7.5 percent of all agricultural pesticide acre-treatments in 2001 based on data reported in FY 2002, an increase from 3.6 percent in 1998.

EPA also made continued progress in achieving its 50 percent priority chemicals reduction target and in meeting the Municipal Solid Waste recycling goal. In 2002 EPA

launched the Resource Conservation Challenge (RCC), which targets 30 waste minimization priority chemicals and urged all Americans to join in conserving resources by reducing waste and increasing recycling.<sup>7</sup> The RCC is the umbrella for initiatives that target waste reduction and recycling. Through these initiatives, EPA works directly with state and local governments, businesses, industry, and the public to reduce waste generation. In several ways, states continue to be instrumental to achievement of the national recycling goal. States participate with EPA as WasteWise partners and endorsers, implement EPA's Comprehensive Procurement Guidelines by purchasing goods made from recycled materials, actively support America Recycles Day, and provide training, support, and oversight for local recycling programs. Other EPA programs such as the Green Chemistry Challenge Awards, Design for the Environment, Hospitals for a Healthy Environment, and National Environmental Performance Track are achieving significant progress in reducing the amount of toxic substances and waste released into the environment. For example, EPA Region 2 Performance Track facilities have collectively reduced the generation of hazardous waste in their area by more than 20 million pounds through process and design changes, equipment upgrades, and efficiency improvements.<sup>8</sup>

## FY 2002 PERFORMANCE

### Risk Identification

Hazard identification is an essential initial step in the risk-reduction process. In FY 2002 EPA's HPV Challenge Program continued to provide health and environmental effects screening data for more than 800 industrial and commercial chemicals. EPA's efforts in making these data available on the Agency's HPV Web site kept pace with the unprecedented volume of data submitted by industry participants.<sup>9</sup>

EPA also established the Voluntary Children's Chemical Evaluation Program (VCCEP), under which 35 chemical manufacturers and 10 consortia volunteered to develop risk assessment and additional data for 20 chemicals

to which children have a high likelihood of exposure.<sup>10</sup> In FY 2002 EPA and the American Chemistry Council conducted a technical workshop to assist industry in formulating and reporting exposure information on chemicals sponsored under the pilot program. In addition, in FY 2002 the Toxicology for Excellence in Risk Assessment (TERA) group, through a cooperative agreement with EPA, solicited and approved members for the peer review panel that will convene to review submissions on sponsored chemicals in FY 2003.

The Agency also worked to identify risks posed by endocrine disruptors—chemicals that may cause adverse effects in humans and wildlife. In FY 2002 EPA continued to move forward with evaluation and validation of test methods focused on identifying and assessing potential endocrine-disrupting chemicals.

In FY 2002 EPA electronically published environmental profiles for all 565 federally recognized tribes as part of the Tribal Baseline Assessment Project.<sup>11</sup> Of those profiles 331 are complete, including history, maps, geographic dimensions, inventories of regulated facilities, governmental structure, descriptions of wastewater and drinking water facilities, grant activities, and status of environmental programs for each tribe.

### Risk Reduction and Elimination

Where potential risks are identified, EPA pursues three strategies for reducing or eliminating them. The Agency's first choice is to prevent risks from occurring in the first place by eliminating pollution at the source. Second, when pollution cannot be eliminated at the source, EPA applies several risk reduction strategies: education and outreach, partnership and collaboration, regulation, and international negotiation. Third, once wastes are produced, there is still an opportunity for recycling or reuse.<sup>12</sup>

Part of the Agency's pollution prevention efforts in FY 2002 was the public release of the PBT (persistent bioaccumulative toxics) Profiler,<sup>13</sup> which received accolades from both industry and environmentalists.<sup>14</sup> In the brief

### CHEMICAL TERRORISM: INCREASING EMERGENCY PREPAREDNESS

To prepare for catastrophes that might occur and to improve the Nation's incident response capabilities, EPA leads nine federal agencies, six states, member countries of the Organisation for Economic Co-operation and Development, and numerous other experts from private industry and other non-governmental organizations in developing Acute Exposure Guideline Levels (AEGLs) for chemicals in commerce.<sup>a</sup> The AEGL values represent three tiers of health effects endpoints (discomfort, disability, and death) for five different exposure durations (10 and 30 minutes, 1, 4, and 8 hours) to provide maximum flexibility and applicability to chemical emergency planners and responders. To date the program has developed AEGLs for about 90 chemicals with Proposed, Interim, or Final status. The Agency continues to assess the remaining 300 extremely hazardous substances.<sup>b</sup>

<sup>a</sup> U.S. EPA Office of Prevention, Pesticides, and Toxic Substances. *Overview of the Acute Exposure Guideline Levels (AEGL) Program*. June 2002.

<sup>b</sup> U.S. EPA Acute Exposure Guideline Limits (AEGL) Tracking System, Office of Pollution Prevention and Toxics.

period of time between the PBT Profiler's public release on September 25, 2002, and mid-November 2002, industry conducted more than 3,750 chemical-specific PBT analyses.<sup>15</sup> A component of EPA's Pollution Prevention Assessment Framework, the PBT Profiler is a screening-level tool that estimates persistence, bioaccumulation, and fish chronic toxicity. Use of this tool informs decision making at early stages of new chemical development and promotes the selection and application of safer chemicals and processes, thus reducing product development costs and increasing pollution prevention benefits.

In addition, EPA made substantial progress in reducing potential health and environmental risks posed by a number of chemicals already in commerce. For example, in the case of perfluorooctanyl sulfonate (PFOS) chemicals, EPA followed up 3M's voluntary phase-out of

### CHALLENGES: KEY STRATEGY FOR REDUCING RISKS

EPA's challenges to industry, academia, and others to seek new ways to reduce risk are increasingly effective. Pollution prevented by EPA's Green Chemistry Challenge Award winners reached new levels through the 2002 award cycle.<sup>a</sup> Results included reduced quantity of hazardous chemicals and solvents in the environment through the adoption of safer chemicals and greener technologies. Since 1996 more than 250 million pounds and 25 million gallons of hazardous solvents were eliminated and 2 billion gallons of water were saved.

<sup>a</sup> U.S. Environmental Protection Agency, Green Chemistry. Office of Pollution Prevention and Toxics. Information available on the Internet: (<http://www.epa.gov/opptintr/greenchemistry>).

these chemicals with Toxic Substances Control Act (TSCA) Significant New Use Rules (SNURs) addressing 88 PFOS-related chemicals.<sup>16</sup> The SNURs establish a 90-day notification process for companies interested in manufacturing or importing the listed chemicals for new uses other than those specifically excluded in the rules. The required notice provides EPA with the opportunity to evaluate the intended use and, if necessary, to prohibit or limit that use before it occurs.<sup>17</sup>

The Design for the Environment (DfE) Program demonstrated the effectiveness of its best practices approach by helping auto body shops reduce emissions of and exposure to diisocyanates and other hazardous air pollutants.<sup>18</sup> Diisocyanates are the leading cause of occupational asthma.<sup>19</sup> In the past several years, DfE has conducted more than 50 best practices site visits. Over 75 percent of visited shops show improved practices and better protection of their workers and the neighboring community.<sup>20</sup> To build on this success and reach out to the more than 50,000 auto body shops across the country, DfE is conducting train-the-trainer workshops for regional and state technical assistance providers in FYs 2002 and 2003.

DfE also published two Cleaner Technologies Substitutes Assessments on flexographic printing inks and foam adhesives, which are spurring adoption of cleaner formulations and the innovation of even cleaner ones.<sup>21</sup> For example, prior to the Foam Adhesives Partnership,<sup>22</sup> the predominant solvent used in adhesive formulations was methylene chloride, a hazardous air pollutant and a suspected human carcinogen. In part based on the DfE study, use of methylene chloride in foam adhesives has dropped by more than 80 percent (from 46 million pounds in 1997 to 8 million pounds in 2001). The DfE Program also formed a partnership with the broader electronics industry in FY 2002, at the industry's request, to begin a life-cycle assessment of lead-free alternatives to the traditional tin-lead solder now used in virtually all electronic products.<sup>23</sup>

The Environmental Leadership Program in the National Parks Intermountain Region is a joint venture between EPA and the National Park Service of the Department of the Interior (DOI), which won the 2002 Most Valuable Pollution Prevention (MVP2) Partnership Award from the National Pollution Prevention Roundtable.<sup>24</sup> This innovative partnership between EPA Region 8 and the National Park Service delivered pollution prevention tools, training, and technical assistance to 90 parks in the Intermountain Region, including Rocky Mountain, Bryce Canyon, and Grand Canyon National Parks. Examples of the partnership's success include an integrated solid waste management program that saved the parks thousands of dollars while setting up recycling centers in many locations; a hazard communication program that trained 3,000 employees on chemical preparedness; a green purchasing program for environmentally sound products; a clean-out manual on how to remove, dispose of, and recycle unwanted chemicals; and the first environmental management system in the DOI based on EPA's Performance Track program.<sup>25</sup> Another successful partnership was achieved between the Department of Defense (DOD) and the southeastern states' pollution prevention programs. Two million dollars of DOD funds were supplied to state partners to initiate



pollution prevention (P2) research projects at military facilities in FY 2002. This partnership represents DOD's first effort to link P2 resources in state universities to facilities in those states.<sup>26</sup>

EPA will continue to conduct education and outreach programs to inform and educate the public about the health risks posed by poor indoor air quality. In FY 2002 EPA launched a national campaign to protect children from secondhand smoke by motivating millions of parents to pledge to keep their homes smoke-free. It is estimated that 15 million children are



exposed on a daily basis to secondhand smoke.<sup>27</sup> The Smoke-Free Home Pledge initiative includes a national advertising campaign coupled with a major outreach effort cosponsored by EPA and key

medical, consumer, and community organizations.<sup>28</sup> In addition, mold continues to be one of the highest concerns for people in their indoor environments. In FY 2002 EPA released current guidance to the public on mold in *A Brief Guide to Mold, Moisture, and Your Home*.<sup>29</sup> The guide, available at <http://www.epa.gov/iaq/molds/images/moldguide.pdf>, provides information and guidance to homeowners and renters on how to clean up residential mold problems and how to prevent mold growth.<sup>30</sup> EPA also released the report *Healthy Buildings, Healthy People: A Vision for the 21<sup>st</sup> Century*, a cross-Agency effort that includes comments from more than 300 stakeholders.<sup>31</sup> The report focuses on why human health indoors deserves the scrutiny, concern, and action of policy makers. It also provides information on actions and strategies that can be taken to protect people indoors. EPA has already undertaken program initiatives focusing on childhood asthma, characterizing the effect of building and consumer products for use in schools, creating

voluntary guidance for existing buildings, and designing indoor air quality guidance that can be applied by architects and engineers when planning new schools and major renovations.<sup>32</sup>

EPA's campaign to reduce the incidence of childhood lead poisoning through regulatory and extensive outreach efforts has realized significant results. The consolidation of 1999 National Health and Nutrition Examination Survey data with 2000 data (made public in the summer of 2002) revealed that the incidence of children with elevated blood lead levels dropped during the 1990s.<sup>33</sup> The median concentration of lead in the blood of children 5 years old and younger dropped from 15 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ) between 1976 and 1980 to 1.9  $\mu\text{g}/\text{dL}$  in 1999, a decline of 87 percent.

In FY 2002 EPA also made significant progress in promoting Integrated Pest Management (IPM) in schools and day care facilities, with the goal of reducing the risk of both pesticides and pests to children. EPA grant funding supported a partnership of 14 land grant universities that aided in the development of comprehensive IPM guidance documents, which enabled state agencies to more efficiently operate their IPM programs. Currently, 33 states and more than 400 school districts have policies and/or laws relating to the adoption of IPM in schools. More than 1 million children attend schools that use IPM according to the Monroe Model, that has been replicated in several states, such as Indiana, Alabama, Florida, Nevada, California, and Arizona (including Navajo Nation/Bureau of Indian Affairs Schools). The Monroe Model is the IPM program developed for the Monroe County, Indiana, school system. Monroe County is a Pesticide Environmental Stewardship Program (PESP) partner that received seed funding from the PESP program through grants with the National Foundation for IPM Education. These schools report a 90 percent reduction in pesticide applications, while at the same time achieving a 90 percent reduction in pest problems and a reduction in cost for pest management.

EPA has targeted reduction and elimination efforts for chemicals that persist, accumulate through the food chain, and are toxic to humans

or are environmental receptors (PBTs.) In FY 2002 EPA launched the Hospitals for a Healthy Environment (H2E) program, seeking to eliminate use of mercury by hospitals and cut waste generation in half. More than 1,000 facilities enrolled in the first year—five times more than expected—prompting the Agency to raise expectations for its FY 2003 and FY 2004 annual performance measure targets.<sup>34</sup> EPA is also targeting the reduction of 30 priority chemicals through hazardous waste minimization. The National Waste Minimization Voluntary Program, initiated in FY 2002 as part of the RCC, is seeking industry partners to eliminate or reduce the generation of priority chemicals typically found in hazardous waste. This effort would result in the generation of less hazardous waste and a reduction in the likelihood of exposures to toxic chemicals. The Agency expects to have between 50 and 100 members enrolled by 2004 and expects to continue the program beyond 2004.<sup>35</sup>

Once wastes are produced, there is still an opportunity to recycle or otherwise reuse them. Data reported in FY 2002 reflect that the 2000 national Municipal Solid Waste (MSW) recycling rate increased to 30 percent.<sup>36</sup> This figure reflects the diversion of 69.9 million tons of MSW from the waste stream and the conservation of 159 million cubic yards of landfill capacity.<sup>37</sup> Reducing the amount of MSW that goes to landfills by recycling saves resources, such as the number of trees milled to produce lumber and paper goods and the amount of metals mined and tailings produced to create new cans. At the same time, by providing feedstock, increased recycling enhances the viability of the recycling and reuse industry, a key segment of the Nation's manufacturing base. Data compiled from 1997 through 1999 indicate that recycling and reuse contribute more than 1.1 million jobs to the economy with a \$37 billion annual payroll and \$236 billion in gross annual sales.<sup>38</sup>

### Research Contributions

FY 2002 research focused on improving EPA's understanding of health risks and reducing community and wildlife exposures to

environmental stressors. EPA produced a report for Agency use on ecological risk assessment methods that shows the extent to which acutely toxic effects of pesticides and crop management practices on non-target birds can be used to project health impacts on wildlife populations in complex agricultural landscapes.<sup>39</sup> EPA also performed studies on the variability and value of newly developed biological indicators in determining the endocrine-disrupting potential of various pesticides. EPA's research on new molecular biological indicators will help the Agency detect and protect the public from pesticides that induce genetic changes characteristic of those caused by endocrine-disrupting chemicals.

EPA continued to move forward with evaluation and validation of test methods for identifying and assessing potential endocrine disrupting chemicals. In FY 2002 EPA completed and presented to one of its advisory committees, the Endocrine Disruptor Methods Validation Subcommittee, detailed review papers summarizing what is known in the literature for 13 assays.<sup>40</sup> All 13 assays are in various stages of pre-validation, optimization, and standardization.

## STATE AND TRIBAL PARTNER CONTRIBUTIONS

### State Contributions

States significantly contributed to achieving EPA's goal to lower children's blood lead levels and reduce childhood lead poisoning. Partnering with 36 states, EPA made substantial progress toward its goal of establishing a national cadre of trained and certified lead-based paint abatement professionals. By the end of FY 2002, more than 4,000 workers were certified to employ EPA-required and recommended work practices to reduce the primary remaining source of children's exposure to lead.<sup>41</sup>

States have primary enforcement responsibility for the Pesticides Certification and Training programs as well as the Worker Protection Program under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. The states' role is critical to the health and safety

of applicators and workers who have the highest degree of potential exposure to pesticides. The Worker Protection Program has an enormous scope, reaching more than 3.5 million workers at over 560,000 workplaces.<sup>42</sup>

### **Tribal Contributions**

Through its Jobs Through Recycling program, EPA partners with a number of nonprofit organizations, including some in tribal nations, to successfully demonstrate the ability of recycling practices to create job and business opportunities. EPA's high-visibility WasteWise program serves as a vehicle for the Agency's 1,250 partners to enhance, measure, and obtain recognition for their proactive achievements in waste reduction and recycling.<sup>43</sup> WasteWise partners are diverse, representing all sizes of businesses, government agencies at all levels, tribal nations, and nonprofit organizations. By showing cost savings through waste reduction and recycling, partners are protecting the environment while enhancing the economy both locally and nationally.

In FY 2002 the Federal Geographic Data Committee organized a Tribal Data Working Group, an interagency effort to promote tribal data coordination and compatibility throughout the federal government in assessing environmental conditions in Indian Country. EPA also provided \$52.5 million in Indian GAP grants that will support the work of at least one person in about 75 percent of all federally recognized tribes or intertribal consortia in building understanding about the environment and helping to set tribal priorities. Creating a strong, sustainable environment for the future based on sound, quality information is an important objective for EPA's tribal partners.

### **ASSESSMENT OF IMPACTS OF FY 2002 PERFORMANCE ON FY 2003 ANNUAL PERFORMANCE PLAN**

There are no changes to FY 2003 APGs based on the results of FY 2002 performance.

## Goal 4: Preventing Pollution and Reducing Risks

### Summary of FY 2002 Annual Performance Goals

**5** Goals Met

**0** Goals Not Met

**4** Data Lags

A description of the quality of the data used to measure EPA's performance can be found in Appendix B.

#### FY 2002 Obligations (in thousands):

EPA Total: \$9,447,202  
Goal 4: \$322,442  
Goal 4 Share of Total: 3.4%

#### FY 2002 Costs (in thousands):

EPA Total: \$7,998,422  
Goal 4 Costs: \$309,196  
Goal 4 Share of Total: 3.8%

Refer to page I-13 of the Overview (Section I) for an explanation of difference between obligations and costs.  
Refer to page IV-10 of the Financial Statements for a consolidated statement of net cost by goal.

## Annual Performance Goals (APG) and Measures FY 1999–FY 2002 Results

**Strategic Objective: By 2005, Public and Ecosystem Risk From Pesticides Will Be Reduced Through Migration to Lower-Risk Pesticides and Pesticide Management Practices, Improving Education of the Public and At Risk Workers, and Forming “Pesticide Environmental Partnerships” With Pesticide User Groups.**

FY 2002 Cost (in thousands): \$51,487 (16.7% of FY 2002 Goal 4 Total Costs)

**Progress Toward Strategic Objective:** EPA continued to make significant progress toward fulfilling this objective in FY 2002 and is on target to achieve its goals through a wide array of environmental programs. EPA's Strategic Agricultural Initiative, in which states, academia, and grower groups develop and implement model agricultural partnership pilot projects, is providing a highly visible platform for environmentally friendly agricultural projects. In addition, the Pesticide Environmental Stewardship Program has approved 120 strategies developed by voluntary partners in both agricultural and nonagricultural settings, which are made available to the public through EPA's Web site (<http://www.epa.gov/opbpbpd1/PESP/>). EPA is also working to ensure that pesticides pose less risk to the Nation's groundwater through careful management of those pesticides with high leaching and persistence potential. In addition, EPA is working to reduce the risk of pesticides to human health and the environment, by registering safer pesticides (those registered through the Reduced Risk Initiative and biopesticides).

APG 23	Agricultural Partnership	Planned	Actual
FY 2002	Implementation of 10-15 additional model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a “reasonable transition” away from the highest risk pesticides. <b>Goal Met.</b>	10-15	12

**FY 2002 Result:** EPA implemented 12 strategic agricultural projects.

**Strategic Objective: By 2007, Significantly Reduce the Incidence of Childhood Lead Poisoning and Reduce Risks Associated With Polychlorinated Biphenyls (PCBs), Mercury, Dioxin, and Other Toxic Chemicals of National Concern.**

FY 2002 Cost (in thousands): \$37,062 (12.0% of FY 2002 Goal 4 Total Costs)

**Progress Toward Strategic Objective:** The Agency is making significant progress toward the objective of reducing the incidence of childhood lead poisoning, from approximately 900,000 children under 6 years of age to under 200,000 by 2007, through its regulatory and outreach efforts. The 1999 National Health and Nutrition Examination Survey (NHANES) data reveal that the median concentration of lead in the blood of children 5 years old and under dropped from 15 micrograms per deciliter (µg/dL) between 1976 and 1980 to 1.9 µg/dL in 1999, a decline of 87%. However, even when the 1999 NHANES data are combined with the 2000 NHANES data made public in the summer of 2002, there are insufficient numbers of observations in the samples to report an estimate of the number of children 5 years old and under with levels of 10 µg/dL in 1999/2000. This suggests that the number of such children nationally has been reduced dramatically from the early 1990s, though development of a reportable estimate must now wait at least until the 2001 NHANES data can be added to the combined sample. EPA's efforts, through state partnerships, contributed partly to this reduction through the certification of more than 4,500 workers to employ EPA-required and recommended lead-based paint abatement practices.

Risk reduction efforts for other National Program Chemicals such as PCBs, mercury, asbestos, and dioxin continue to meet the mandates under TSCA and fulfill the commitments made in domestic and international agreements. Approximately 98,000 PCB-contaminated capacitors and approximately 53,000 PCB-contaminated transformers were disposed of in permitted facilities between 1996 and 2000, continuing progress toward EPA's 2007 targets for PCB capacitors.



APG 24	Lead Certification and Training of Lead Abatement	Planned	Actual
FY 2002	Implement certification and training of lead abatement professionals. <b>Goal Met.</b>		

**Performance Measure**

- Certified nationally (federally-administered and state-administered program).	4,000	4,574
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**FY 2002 Result:** In FY 2002, 4,574 lead abatement officials were nationally certified. EPA exceeded its FY 2002 target for this measure as a result of the response by lead-based paint abatement professionals to the Agency's and states' efforts to train and certify proficiency in lead-based paint abatement techniques, which was greater than anticipated. Targets for future performance under this goal have been increased accordingly.

**Strategic Objective: By 2007, Prevent or Restrict Introduction into Commerce of Chemicals That Pose Risks to Workers, Consumers, or the Environment and Continue Screening and Evaluating Chemicals Already in Commerce for Potential Risk.**

*FY 2002 Cost (in thousands): \$77,788 (25.1% of FY 2002 Goal 4 Total Costs)*

**Progress Toward Strategic Objective:** EPA is making progress toward this strategic objective by safeguarding the entry of new chemicals into commerce and providing screening tools through the Agency's Pollution Prevention Assessment Framework. These tools inform decision-making at early stages of new chemical development and promote the selection and application of safer chemicals and processes, thus reducing product development costs and increasing pollution prevention benefits. EPA's High Production Volume (HPV) Challenge Program continued to provide health and environmental effects screening data for more than 800 industrial and commercial chemicals—supplying input to hazard identification efforts (<http://www.epa.gov/chemrtk/viewsrch.htm>). More than 300 companies and 101 consortia have accepted the voluntary challenge to address the absence of and need for screening-level data for more than 2,100 of the 2,800 HPVs by 2005. Concurrently, EPA established the Voluntary Children's Chemical Evaluation Program (VCCEP), under which 35 chemical manufacturers volunteered to develop risk assessment and additional data needs for 20 chemicals to which children have a high likelihood of exposure. In addition, EPA reduced potential health and environmental risks associated with a number of chemicals already in commerce. For example, in the case of perfluorooctanyl sulfonate (PFOS) chemicals, EPA followed up industry's voluntary phase-out of these chemicals with TSCA Significant New Use Rules (SNURs) addressing 88 PFOS-related chemicals.

APG 25	New Chemicals and Microorganisms Review	Planned	Actual
FY 2002	Of the approximately 1,800 applications for new chemicals and microorganisms submitted by industry, ensure those marketed are safe for humans and the environment. Increase proportion of commercial chemicals that have undergone pre-manufacture notice review to signify they are properly managed and may be potential green alternatives to existing chemicals. <b>Goal Met.</b>	1,800	1,943
FY 2001	Same Goal. <b>Goal Met.</b>	1,800	1,770*
FY 2000	Same Goal. <b>Goal Met.</b>	1,800	1,838
FY 1999	Same Goal. <b>Goal Met.</b>	1,800	1,717*

**FY 2002 Result:** EPA reviewed all 1,943 Pre-manufacturing Notices (PMNs) received during FY 2002. At the end of 2002, 21.5% of all chemicals in commerce had been assessed for risks. Many of these chemicals also may be "green" alternatives to existing chemicals in commerce, thus reducing these chemicals' impact on human health and the environment.

**\*Note:** While the actual number of chemicals for which PMNs were reviewed is lower than the target, the target was set to reflect EPA's commitment to comply with statutorily-mandated 90-day reviews of all PMNs submitted in 1999 and 2001, which it did. Under the Toxic Substances Control Act, EPA does not control the pace at which companies submit PMNs for review, but it does control the pace at which it completes such reviews. Accordingly, the Agency has determined this performance goal to have been met.

APG 26	Chemical Right to Know Initiative	Planned	Actual
FY 2002	Provide information and analytical tools to the public for accessing the risk posed by toxic chemicals. <b>Goal Met.</b>		
	<b>Performance Measure</b>		
	- Make screening quality health and environmental effects data publicly available for 2,800 HPV chemicals (cumulative).	10% data (280 chemicals)	843 chemicals
FY 2001	EPA will make publicly available data from test plans submitted by industry or chemicals already in commerce. <b>Goal Met.</b>		
	<b>Performance Measure</b>		
	- Through chemical testing program, obtain test data for high production volume chemicals on master testing list.	800	724* chemicals

**FY 2002 Result:** In FY 2002 screening quality health and environmental effects data were made available for 843 HPV chemicals, vastly exceeding EPA's annual goal. Companies voluntarily reported more than 30% of the total cumulative requirement (20% above the annual target).

**\*Note:** While the actual number of chemicals for which test data were obtained was lower than the target, the target was set to reflect EPA's commitment to make publicly available all test data that it received from companies in 2001, which it did. Under the HPV Challenge voluntary program, EPA does not control the pace at which companies submit their test data, but it does control the pace at which such data are made public. Accordingly, the Agency determined this performance goal to have been met.

**Strategic Objective: By 2005, 16 Million More Americans Than in 1994 Will Live or Work in Homes, Schools, or Office Buildings With Healthier Indoor Air.**

*FY 2002 Cost (in thousands): \$38,397 (12.4% of FY 2002 Goal 4 Total Costs)*

**Progress Toward Strategic Objective:** In FY 2002 EPA continued to make progress in the areas of reducing the exposure of children with asthma to indoor environmental triggers, reducing all Americans' exposure to elevated levels of radon in their homes, reducing the exposure of children to secondhand smoke in their residences, and promoting the adoption of good indoor air quality management in schools and commercial buildings. While the data on which EPA evaluates its FY 2002 progress toward the objective are not yet available for 2002, the Agency is on track in meeting its goal for improving the indoor conditions for 16 million Americans in their homes, schools, and offices.

APG 27	Healthier Residential Indoor Air	Planned	Actual
FY 2002	834,400 additional people will be living in healthier residential indoor environments. <a href="#">Data Lag.</a>	834,400	data available in 2003
FY 2001	Same Goal. <a href="#">Goal Met.</a>	890,000	890,000
FY 2000	Same Goal. <a href="#">Goal Met.</a>	890,000	1,032,000
FY 1999	Same Goal, different targets. <a href="#">Goal Met.</a>	700,000	1,322,000

**FY 2002 Result:** Based on feedback received to date, EPA is making progress in reducing radon exposure in homes. EPA will implement a survey to measure asthma and ETS results. These data will be available in late 2003 and will be reported on in the FY 2003 Annual Report. (Data sources: National Association of Home Builders Research Center Survey (January 2002); National Radon Residential Study 1989-1990, EPA 402-R-92-011 (October 1992); National Radon Results: 1985-1999; IAQ Practices in Office Buildings Survey, OMB 2060-0436 (October 2001) .)

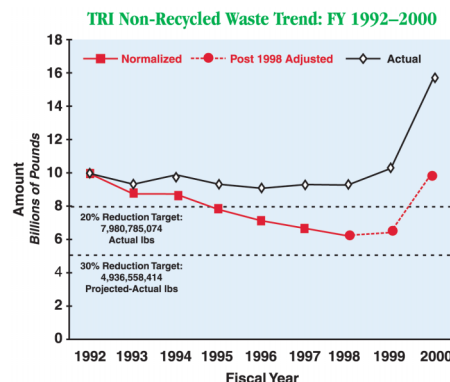
APG 28	Healthier Indoor Air in Schools	Planned	Actual
FY 2002	1,228,500 students, faculty and staff will experience improved indoor air quality in their schools. <a href="#">Data Lag.</a>	1,228,500	data available in 2003
FY 2001	Same Goal, different targets. <a href="#">Goal Met.</a>	1,930,000	1,930,000
FY 2000	Same Goal, different targets. <a href="#">Goal Met.</a>	2,580,000	2,600,000

**FY 2002 Result:** EPA is on track to meet this APG. The number of schools adopting indoor air quality management plans, a key component of the Indoor Air Quality Tools for Schools kit, continued to increase in FY 2002 based on feedback received to date. EPA will determine FY 2002 performance in calendar year 2003 once final survey results become available.

**Strategic Objective: By 2005, Facilitate the Prevention, Reduction, and Recycling of Toxic Chemicals and Municipal Solid Wastes, Including Persistent, Bioaccumulative Toxicants (PBTs). In Particular, Reduce By 20% the Actual (From 1992 Levels) and By 30% the Production-Adjusted (From 1998 Levels) Quantity of Toxic Release Inventory (TRI)-Reported Toxic Pollutants Which Are Released, Disposed of, Treated, or Combusted For Energy Recovery, Half Through Source Reduction.**

*FY 2002 Cost (in thousands): \$46,623 (15.1% of FY 2002 Goal 4 Total Costs)*

**Progress Toward Strategic Objective:** EPA is making progress toward this strategic objective. In September 2002 EPA launched its Resource Conservation Challenge, a major national effort inviting all Americans to join in conserving resources by reducing waste and increasing recycling. In the coming months, EPA will form partnerships, conduct an intense educational campaign, and demonstrate progress in conserving our natural resources through waste reduction and recycling. For the 30 waste minimization priority chemicals tracked by EPA and included in the Challenge, there was a 44% reduction in the reported Toxics Release Inventory (TRI) volume generated between 1991 and 1998. This reduction, coupled with the ongoing efforts of the Resource Conservation Challenge, illustrates EPA's continued progress toward achieving its 50% source reduction objective by 2005. Through EPA's Green Chemistry Challenge Program, initiated in 1996, more than 250 million pounds and 25 million gallons of hazardous solvents were eliminated and 2 billion gallons of water were saved. Another major step toward source reduction has occurred through EPA's Hospitals for a Healthy Environment (H2E) program. Launched in FY 2002, the H2E program seeks to eliminate use of mercury by hospitals and cut waste generation in half; more than 330 partners representing more than 1,000 facilities enrolled in FY 2002, far surpassing the Agency's expectations.



EPA's progress toward reduction of TRI pollutants is uncertain. The aggregate change in TRI non-recycled wastes since 1992 is unknown due to a significant reporting error uncovered subsequent to the release of the 2000 TRI reporting data. It is difficult to predict with accuracy the number of pounds of pollutants released in any given year due to fluctuations in production, reporting system rules, and estimation methods. The long-term trend, however, is a continued reduction of pollutants released into the environment.

APG 29	Toxic Release Inventory (TRI) Pollutants Released	Planned	Actual
<b>FY 2002</b>	<b>The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2001. <a href="#">Data Lag.</a></b>	<b>-200 M</b>	<b>data available in 2004</b>
<i>FY 2001</i>	<i>The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2001 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2000. <a href="#">Data Lag.</a></i>	<i>-200 M</i>	<i>data available in 2003</i>
<i>FY 2000</i>	<i>The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery, (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 1999 reporting levels. <a href="#">Goal Met.</a></i>	<i>-200 M</i>	<i>-405 M</i>
<i>FY 1999</i>	<i>The quantity of TRI pollutants released, treated, or combusted for energy recovery will be reduced by 200 million pounds, or 2% from 1998 reporting levels. <a href="#">Goal Not Met.</a></i>	<i>-200 M</i>	<i>+684 M</i>

**FY 2002 Result:** Data Lag. Data will be available in September 2004.

**FY 2000 Result Available in FY 2002:** EPA exceeded its target of a reduction of 200 million pounds of TRI pollutants released. An analysis conducted using preliminary corrected data shows that actual non-recycled waste increased by just under 300 million pounds (2.9%) from 1999 to 2000, compared to the target of a 2% reduction. However, when the data are normalized to control for changes in production, a 2.3% reduction is observed from 1999 to 2000.

APG 30	Municipal Solid Waste Source Reduction	Planned	Actual
<b>FY 2002</b>	<b>Divert an additional 1% (for a cumulative total of 31% or 69 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of Resource Conservation and Recovery Act (RCRA) municipal solid waste at 4.5 pounds per day. <a href="#">Data Lag.</a></b>	<b>69 M 4.5 lbs</b>	<b>data available in 2004</b>
<i>FY 2001</i>	<i>Divert an additional 1% (for a cumulative total of 30% or 67 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day. <a href="#">Data Lag.</a></i>	<i>67 M 4.3 lbs</i>	<i>data available in 2003</i>
<i>FY 2000</i>	<i>Divert an additional 1% (for a cumulative total of 29% or 64 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day. <a href="#">Goal Met.</a></i>	<i>64 M 4.3 lbs</i>	<i>69.9 M 4.5 lbs</i>
<i>FY 1999</i>	<i>Maintain levels (for a cumulative total of 28% or 62 million tons) of municipal solid waste diverted from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day. <a href="#">Goal Met.</a></i>	<i>62 M 4.3 lbs</i>	<i>64 M 4.6 lbs</i>

**FY 2002 Result:** Data Lag. Data will be available in December 2004.

**FY 2000 Result Available in FY 2002:** In FY 2000, 30.1%, or 69.9 million tons of municipal solid waste, was diverted from land filling and combustion, and the per capita generation decreased to 4.5 pounds per day.

**Strategic Objective: By 2005, EPA Will Assist All Federally Recognized Tribes in Assessing the Condition of Their Environment, Help in Building Tribes' Capacity to Implement Environmental Management Programs, and Ensure That EPA is Implementing Programs in Indian Country Where Needed to Address Environmental Issues.**  
*FY 2002 Cost (in thousands): \$57,839 (18.7% of FY 2002 Goal 4 Total Costs)*

**Progress Toward Strategic Objective:** EPA is on track and making progress toward this strategic objective. Through FY 2002 the Agency has collected baseline environmental information on 331 tribes, or 58% of tribes, exceeding its annual goal. In addition to providing a picture of environmental conditions in Indian Country, the baseline assessment effort will provide indicators of the progress of tribal environmental programs according to Agency goals and objectives.

APG 31	Tribal Environmental Baseline/Environmental Priority	Planned	Actual
<b>FY 2002</b>	<b>Baseline environmental information will be collected for 38% of tribes (covering 50% of Indian Country). <a href="#">Goal Met.</a></b>		
	<b>Performance Measure</b>		
	- Environmental assessments for tribes (cumulative).	217 tribes*	331 tribes*

FY 2001	Same Goal, different targets. <i>Goal Met.</i>	193	207
FY 2000	16% of tribal environmental baseline information will be collected and 12 additional tribes (cumulative total of 57) will have tribal/EPA environmental agreements or identified environmental priorities. <i>Goal Not Met.</i>	16% 12	16% 4
FY 1999	10% of tribal environmental baseline information will be collected and 10 additional tribes (cumulative total of 45) will have tribal/EPA environmental agreements or identified environmental priorities. <i>Goal Met.</i>	10% 10	10% 11

**FY 2002 Result:** Under federal environmental statutes, EPA is responsible for ensuring human health and environmental protection in Indian Country. By the end of FY 2002, EPA collected baseline environmental information for a cumulative total of 331 of 572 tribal entities.

**\*Note:** EPA collected baseline information for 331 tribes (58%) of the universe of 572 tribes, thereby exceeding the goal of 217 tribes (38%).

**Prior Year Annual Performance Goals Without Corresponding FY 2002 Goals**  
(Actual Performance Data Available in FY 2002 and Beyond)

		Planned	Actual
FY 2000	Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005.		target year is FY 2005
FY 1999	Complete the building of a lead-based paint abatement certification and training in 50 states, to ensure significant decreases in children's blood lead levels by 2005 through reduced exposure to lead-based paint.		target year is FY 2005



## Notes:

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